

REMARKS

Applicants thank the Examiner for the thorough consideration given the present application. Claims 1-7 and 9-12 are currently being prosecuted. The Examiner is respectfully requested to reconsider her rejections in view of the amendments and remarks as set forth below.

Entry of Amendment

Applicants request that the current amendment be entered into the official file since no new issues are presented. Applicants have added limitations from claim 8 to claim 6 from which it depends and have also added the word “and” in claim 1. Neither of these changes involve any new issues. Claim 12 has also been amended to correct an error pointed out by the Examiner and to correct two other grammatical errors. Since the changes do not raise any new issues, Applicants admit that entry of this amendment and full consideration thereof is appropriate.

Claim Objections

The Examiner objected to claim 12 as referring to an apparatus rather than a method. By way of the present Amendment, this has been corrected. The Examiner also required the addition of one word in the second line of claim 12. By way of the present Amendment, this has also been accomplished. Accordingly, these objections are believed to be overcome.

Rejection Under 35 U.S.C. § 102

Claims 1-12 stand rejected under 35 U.S.C. § 102 as being anticipated by Ahne et al. (U.S. Patent 6,637,853). This rejection is respectfully traversed.

The Examiner states that Ahne et al. teaches an apparatus for detecting faulty nozzles including a printing unit, a scanning unit 16 and analyzing unit 18. The Examiner also points out memory unit 20 and the use of a microprocessor.

Applicants submit that the claims are not anticipated by this reference. The present invention relates to a multi-function peripheral which includes at least a printer and scanner as well as a memory and analyzing unit. Thus, these peripherals are well known and commonly available. In the present invention, the printer prints a predefined test pattern on paper. This is given to the scanning unit which scans the test pattern on the paper to generate an electronic image. The analyzing unit reviews the electronic image to ascertain that a correct printing occurs in the location assigned to each nozzle. Any nozzles which do not make a correct mark are noted as faulty and error information is given to the printing unit so the printing unit can use adjacent normal nozzles to compensate for the faulty nozzle.

This differs from the reference where the image of the test pattern is analyzed by a host processor of a computer. Thus, in the present invention a separate computer is not necessary in order to provide this information. Instead, the analyzing unit of the apparatus makes the determination based on the scanning provided by the scanning unit of the apparatus. Thus, the prior art fails to teach that the printer can perform this analysis by itself. Accordingly, the multi-function peripheral can perform an analysis without a host computer. The present invention can

then be used in the development of an industrial printing platform. It is clear then that the analysis of the location of faulty nozzles can be conducted and stored in the memory unit of the peripheral rather than relying on the host memory in the computer.

Furthermore, in the prior art, the sensor is fixed and does not scan horizontally across the print median as the pattern is being sensed. This differs from the present invention where the test pattern is fixed and is scanned by the scanning unit. Accordingly, the type of scanning unit differs between the present invention and the prior art. Because of these differences, Applicants submit that claim 1 is allowable.

Claim 6 is a method claim which corresponds to claim 1 and accordingly is also allowable for the same reasons. In addition, claim 6 specifically defines the step of sending the test pattern to the scanning unit which is not seen in the reference. The optical sensor 16 reviews the pattern as it is printed rather than having the paper sent to the separate scanning unit. Accordingly, Applicants submit that claim 6 is also allowable.

Claims 2-5, 7 and 9-12 depend from these allowable independent claims and as such are also considered to be allowable. In addition, each of these claims recite other features that make them additionally allowable.

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CONCLUSION

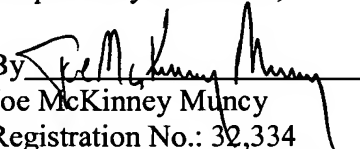
In view of the above remarks, it is believed that the claims clearly distinguish over the patent relied on by the Examiner. In view of this, reconsideration of the rejection and allowance of all the claims are respectfully requested.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert F. Gnuse, Reg. No. 27,295, at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

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